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Q1
transmitting through the interface the detection information from [the off-hook detecting means and] the bell signal detecting means to application software initiation request means of the personal computer, initiating thereby directory application software, and transmitting through the interface the detected caller telephone number for displaying on a screen detailed information [of a partner] stored in a storage of the personal computer which is associated with the caller telephone number.

R E M A R K S

The Examiner's Action of September 18, 1998 has been received and its content carefully considered.

The specification has been editorially revised to place it in better form.

Claims 1-8 have been amended so as to more particularly point out and distinctly claim the subject matter regarded as applicant's invention.

Claims 1,2 and 4-6 stand rejected under 35 U.S.C. § 102 (b) as being anticipated by Archibald et al. It is requested that this rejection be reconsidered and withdrawn in view of the foregoing amendments and the following comments.

According to the invention as recited in claim 1, as amended, the communication apparatus includes a caller information detecting means for detecting a caller telephone number and a central control

means for transmitting the caller telephone number through an interface means to a personal computer for causing a telephone directory application in the personal computer to display additional information associated with caller telephone number.

The structure and operation of Archibald et al is quite different from the invention recited by claim 1. Archibald et al disclose a method of accessing a computer through a data communication equipment (DCE), for example a modem, wherein the DCE stores a plurality of lists, each lists including a plurality of calling party directory numbers (CPDN's) wherein an incoming call including a CPDN number provided by the local telephone service is compared with the CPDN numbers in the stored lists in the modem to determine whether access should be granted to the computer.

Referring to Figure 2 of Archibald et al., there is shown a modem 200 which includes a memory 220 for storing the plurality of lists of CPDN numbers coupled through a CPU 210 to an off-hook relay 260 that is connected directly to a telephone network via a lead 201. Lead 201 is additionally connected to a relay bypass circuit 250 so that the modem 200 initially remains in an "on-hook" state when there is an incoming call on lead 201. That is, without answering the telephone call the incoming signal on lead 201 is bypassed via relay bypass circuit 250 to a hybrid circuit 240 which couples the incoming signal to a digital signal processor 230 which processes and decodes the incoming signal while the modem still

remains "on-hook." The decoded information, which includes both a ringing signal and the calling party's CPDN is provided to the CPU 210 which then proceeds to compare the CPDN with the CPDN's stored in the lists contained in memory 220. If the CPDN number is on a "caller pays" list 221, the CPU sends a signal via an off-hook relay control line 212 to activate off-hook relay 260 to place the modem in the "off-hook" state whereby the call is answered. After completing the call establishment sequence, modem 200 provides a data stream on lead 151 to computer 150 via an interface 270. If the CPDN is matched with a number on the "we-pay" list 222, the CPU allows the off-hook relay to remain in the on-hook state. After the ringing signal terminates, the CPU activates a return call. If there is no match between the incoming CPDN number and number on either the "you-pay" or "we-pay" lists, the off-relay 260 remains in the "on-hook" state so that the call remains unanswered.

Thus, according to Archibald et al., the modem contains a memory for storing telephone number information which is compared with a detected telephone number of an incoming call and a data stream is transferred to the computer only after completion of the call process. Archibald et al. do not disclose that a detected telephone number of an incoming call is ever sent to the personal computer. This is quite different from the communication apparatus recited by claim 1, wherein the calling party's telephone number information is detected and transmitted to the personal computer

through the interface means for causing a telephone directory application in the computer to display additional information associated with the caller telephone number. Stated another way, whereas the modem in Archibald et al prevents data being transferred to a computer unless access is granted by virtue of a match between the incoming CPDN number and a plurality of CPDN numbers stored in a memory in the modem, the communication apparatus according to claim 1 transmits the incoming calling number to the computer for the purpose of displaying additional information associated with the incoming telephone number even before the call is answered. In view of the above, it is respectfully submitted that claim 1 is patentable over Archibald et al.

Claim 2 is submitted to be patentable for at least the same reasons as claim 1 since it depends from and incorporates the subject matter of claim 1. In addition, it is respectfully submitted that Archibald et al does not teach a "central control means transmitting information of the detection from the off-hook detecting means to a directory application initiation request means integrally included in the personal computer." To the extent that the Examiner's action likens memory 220 which stores the plurality of CPDN lists with the directory application initiation requests means recited in claim 2, it is noted that memory 220 is located in

modem 220 and not in the computer 150 as would be required by the present invention.

With respect to claim 4 of the invention, it is noted that Archibald et al do not disclose that detection information detected by an off-hook detector is sent to a telephone directory application request portion which is incorporated in the personal computer, nor do Archibald et al teach transmitting to the personal computer the calling party telephone number information detected by the detector period as discussed above.

According to the invention as defined by claim 4, the off-hook detecting means detects an event that the telephone line is closed at initiation of communication and this information is sent to the personal computer to initiate the directory application request means. Upon an incoming call, the detected caller number is automatically sent to the personal computer so that the telephone directory application in the personal computer may display additional information such as the name of the calling party on the basis of the calling party's telephone number information. When the user makes a call, the detection of the off-hook condition is communicated over the interface to the serial port of the computer which initiates the telephone directory application software as shown at step 4 in figure 4.

Claims 5-8 have been amended in a manner similar to the amendments of claim 1 to thus clarify that the control means

transmits information of the caller telephone number detected by the caller information detection means through the interface so that the computer can display additional or detailed information associated with the caller telephone number.

Claims 5-8 are thus submitted to patentable over Archibald et al for at least the same reasons as claim 1. Moreover, claims 5, 7, and 8 additionally recite a bell signal detecting means. The control means additionally transmits through the interface information from the bell signal detecting means to the application software initiation request means for initiating the software for displaying on the screen additional detailed information concerning or associated with a caller telephone number detected by the caller information detecting means. This is completely contrary to Archibald et al. wherein, for security purposes neither the caller telephone number nor the bell signal is ever transmitted over the interface to the computer. In fact, no data whatsoever is transmitted over the interface to the computer until after the caller telephone information can be compared with one of the CPDN numbers stored in list 221, 221 of memory 220 contained in modem 200.

Applicants therefore respectfully disagree with the contention in the Examiner's action that claims 6-8 are rejectable under 35 U.S.C. § 103(a) as being unpatentable over Archibald et al. in view of well known prior art. The Examiner's action contends that

Archibald et al. teach everything that is recited by these claims with the exception of the application initiation software being contained in the computer 150 of Archibald et al. The Examiner's Action suggests that the application program of Archibald et al. for comparing the incoming caller telephone number with a stored CPDN could be performed in either the computer or the modem. However, this is completely contrary to the purpose of Archibald et al. which is to provide a secured access to the computer. This is accomplished by having a smart modem which includes hardware and software for comparing the incoming caller telephone number with a CPDN number stored in the modem before the modem even goes off-hook so that no data is transmitted over the interface to the computer unless and until there is a match in the modem between the incoming caller telephone number and the CPDN numbers stored in the modem.

In the present invention the personal computer is utilized to provide caller information to the user of a telephone. This is accomplished by storing directory application software in a personal computer and initiating the directory application software in response to either a bell signal or an off-hook event which is transmitted over the interface to the computer and supplying additional detailed information concerning the caller telephone number which is additionally transmitted over the interface to the computer. Since the transmission of such information to the computer is completely contrary to the whole purpose and operation

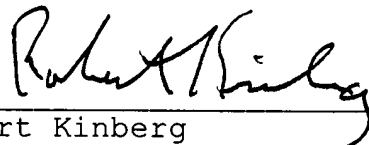
of Archibald et al., it is submitted that it would not be obvious to modify Archibald et al. in the manner suggested in the Examiner's Action. The Examiner is therefore respectfully requested to reconsider and withdraw the § 103(b) rejection of claim 6-8.

Claim 3 has also been rejected under 35 U.S.C. § 103(a) as being unpatentable over Archibald et al. in view of Hirota. Claim 3 now depends from claim 1. The Examiner's Action suggests it would be obvious to replace the terminal equipment 110 in Archibald et al. with a facsimile machine in view of Hirota. However, Hirota does not overcome any of the deficiencies of Archibald et al. as previously discussed in connection with claim 1. Therefore, it is respectfully submitted that claim 3 which depends from and incorporates the subject matter of claim 1, is patentable over any reasonable combination of Archibald et al. and Hirota.

In view of the above, it is respectfully submitted that the application is in condition for allowance with claims 1-8. An early and favorable reconsideration is requested.

In the Examiner believe that a conference would help to advance the prosecution of this application, he is invited to call the undersigned at the telephone number listed below.

Respectfully submitted,



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